

WIERZBA, JILL, Ed.D. Growth-Minded Athletes: Does Coaching Feedback Matter? (2018)

Directed by Dr. Diane L. Gill. 43 pp.

The purpose of the current study was to begin to understand the relationship between coaching feedback focal points and mindset (fixed and growth) in an adult athletic population. The specific aim was to determine what types of verbal feedback focal points (person-, outcome-, process-focused) coaches used when coaching their athletes and how this related to the mindset of athletes. Fifteen coaches (M=33 years old; experience M=4.8 years coaching; 9 male; 6 female) and 65 total athletes (32 female, 33 male; M=38 years old) participated in the study. The hypotheses were: 1) coaches give more person- and outcome-focused praise feedback than process-focused feedback, and 2) athletes who receive more process-focused praise will report more growth mindset type beliefs. An observational method of coaching behavior was used to gather feedback focal point data, and adult athletes filled out a mindset questionnaire. Data analysis used Pearson's Correlation and results indicated that no significant correlational relationship existed for process-focused praise ( $r = .040$ ,  $p = .888$ ,  $n = 15$ ) or person- and outcome-focused praise ( $r = -.104$ ,  $p = .713$ ,  $n = 15$ ). However, r-values and trend lines of the 15 data sets suggest the predicted relationship that mirrors the praise focal point relationship found with teacher-student studies. Therefore, a larger sample size may give more clarity to this relationship and better inform coaching best practices for adults and athletic populations. These findings may benefit coaching education and help to intentionally build a growth mindset within athletics.

GROWTH-MINDED ATHLETES: DOES COACHING FEEDBACK MATTER?

by

Jill Wierzba

A Dissertation Submitted to  
the Faculty of The Graduate School at  
The University of North Carolina at Greensboro  
in Partial Fulfillment  
of the Requirements for the Degree  
Doctor of Education

Greensboro  
2018

Approved by

---

Committee Chair

## APPROVAL PAGE

This dissertation written by JILL WIERZBA has been approved by the following committee of the Faculty of The Graduate School at The University of North Carolina at Greensboro.

Committee Chair \_\_\_\_\_

Committee Members \_\_\_\_\_

\_\_\_\_\_

June 4, 2018  
Date of Acceptance by Committee

May 1, 2018  
Date of Final Oral Examination

## TABLE OF CONTENTS

	Page
LIST OF TABLES .....	iv
LIST OF FIGURES .....	v
CHAPTER	
I. PROJECT OVERVIEW .....	1
Purpose and Research Questions .....	3
Methods .....	3
Results .....	10
Discussion and Professional Practice Implications .....	13
II. DISSEMINATION .....	17
Workshop Outline .....	18
III. ACTION PLAN .....	20
REFERENCES .....	23
APPENDIX A. CONSENT FORMS .....	25
APPENDIX B. COACH OBSERVATION TOOL.....	31
APPENDIX C. COACH AND ATHLETE QUESTIONNAIRES .....	35
APPENDIX D. COACHING SELF-ASSESSMENT PROTOTYPE .....	40
APPENDIX E. FIGURES.....	42

## LIST OF TABLES

	Page
Table 1.1. Coaching Feedback .....	11
Table 1.2. Pearson Correlation Analysis Results.....	12

## LIST OF FIGURES

	Page
Figure 1.1. Person- and Outcome-Focused Praise .....	42
Figure 1.2. Process-Focused Praise .....	43

## CHAPTER I

### PROJECT OVERVIEW

Coaching excellence research shows that at least 50% of comments from the coach are in the form of verbal feedback (Gallimore & Tharp, 2004; Smith & Smoll, 1997). However, there is not a clear understanding of coaching feedback as it relates to athlete fixed and growth mindset. The evidence is extensive that a growth-minded person has been shown to embrace challenges, persevere after failure, and give consistent and purposeful effort towards learning and development. By significant margins a fixed minded person does just the opposite (Dweck, Chiu, & Hong, 1995a; 1995b; Dweck & Reppucci, 1973; Yeager & Dweck 2012). This influence of mindset has been demonstrated, although with much less research, within physical activity and athletic settings (Ommundsen, 2001; Slater, Spray & Smith, 2012). Therefore, those who have a growth mindset consistently achieve higher levels of their potential and higher performance (Blackwell, Trzesniewski, & Dweck, 2007; Burnette, O'Boyle, VanEpps, Pollack, & Finkel, 2013; Dweck, 2012; Licht & Dweck, 1984). To that end, research conducted on the influence of different focal points of feedback, particularly focal points of praise, demonstrate substantial evidence for the influence of feedback focal points (i.e. person-, outcome-, and process-focused) that highly influence fixed and growth mindsets. Praise focal points are of particular concern, as the influence of praise is counterintuitive in its true impact on the mindset of an individual receiving that praise (Kamins & Dweck,

1999; Mueller & Dweck, 1998). Although counterintuitive, person-focused praise, which focuses on just the person as the factor that contributed to the success (e.g., you are great), and outcome-focused praise, which focuses on just the result or outcome of the success (e.g., good job), builds a fixed mindset. Alternately, the focal point that actually builds a growth mindset is process-focused praise, which focuses on the process, strategy, or effort that led to the success (e.g., you worked hard). These constructs have largely been examined within scholastic settings, where praise focal points are the contingent factor of feedback from teacher to student in the development of either a fixed or growth mindset (Kamins & Dweck, 1999; Cimpian, Arce, Markman, & Dweck, 2007).

The current research takes this foundation of impact of feedback from within educational settings with children and examined these same relationships within an athletic environment and with an adult population. While the playing field is different and the subject matter is different, the coach-athlete relationship is similar to teacher-student, with the end goal being for the athlete to learn and improve (Chase, 2010). Unfortunately, there is little empirical evidence providing guidance to coaches of how to provide feedback specifically targeted at developing a growth mindset, and minimizing a fixed mindset in their athletes (Chase, 2010). It is currently unknown the degree to which coaches use process-focused feedback with their adult athletes, nor is it known if process-focused praise has the same influence on an adult athlete's mindset as it does a student's mindset. From a coaching education and an applied sport psychology perspective, to understand this linkage between coaching feedback focal points with an adult athlete population is critical to the advancement of evidence-based practice of applied sport



psychology for optimal human performance – for athletes and coaches alike. This project identifies applicable information for coaches and athletes of how to best influence a growth mindset with an adult athlete population.

### **Purpose and Research Questions**

The purpose of this study was to determine what types of verbal feedback focal points (person-, outcome-, process-focused) coaches used when coaching their athletes and how this related to the mindset of athletes. The current study addressed the relationship between coaching feedback focal points and athlete mindset with an adult athletic population. The specific aims were to determine: 1) what types of feedback focal points (person-, outcome-, process-focused) coaches used when coaching their athletes, and 2) how this feedback related to the mindset of athletes. The working hypotheses were: 1) coaches give more person- and outcome-focused praise feedback than process-focused feedback, and 2) athletes who received more process-focused praise will report more growth mindset type beliefs.

### **Methods**

This study used observational measures of coaching feedback and survey measures of athlete mindset to investigate the relationship of Crossfit coach feedback with Crossfit athlete mindset. By conducting a systematic observation of coaching verbal feedback focal points and correlating them to self-reported athlete mindset, we can form a

better understanding of the relationship of praise focal points between coach and adult athlete are similar to that of teacher and student.

***Participants.*** The target population was Crossfit coaches and their adult Crossfit athletes. This population was selected because of the wide variety of type and skill level of athlete as well as coaches who coached regularly (with many athletes) and consistently coached these athletes (the same coach saw and coached these athletes frequently). Fifteen coaches total were observed for 1-hour workout sessions. The coaches were between 20 and 42 years old ( $M=33$  years) and had between 6 months through 12 years experience coaching ( $M=4.8$  years). Nine of the 15 coaches were male. Coaches had at least the Level 1 Crossfit Coaching certification (of four possible levels of certification, Level 4 being highest). One of the observed coaches was a Level 4, two were Level 3, six were Level 2, and six were Level 1 certified.

Coaches who agreed to participate granted the researcher 1 minute at the beginning of the workout session to explain the purpose of her presence and observation of the coach. At this time, athletes were invited by the researcher to participate, if they wished, in filling out the self-report questionnaire following the workout session. They were notified that participation in the questionnaire was completely voluntary and would have no impact on their receiving coaching during the workout. All athletes and coaches ages were 18 years old or older and were able to participate in the regularly scheduled workout session of the day. Sixty-five athletes total filled out questionnaires. For each coach, between 1 and 9 athletes filled out the athlete questionnaire ( $M=4.33$ ). The athletes were between the ages of 18-63, average age of 38 years. There were 33 male

and 32 females who participated. The length of time of experience in participating in Crossfit was: 6 (9%) participating for 0-6 months, 3 (5%) for 6-12 months, 21 (32%) for 1-2 years, 20 (31%) for 3-4 years, and 15 (23%) for 5+ years. The athletes self-identified as Caucasian (n=40), Asian (n=3), African American (n=2), and Hispanic (n=20). Their perceived overall athletic ability in Crossfit (Scale 1-10) was an M=5.5 (Low score 1, high score 9). The athletes also reported a wide variety of other athletic experience from organized team sports (e.g. soccer) to individual sport (e.g. marathon runners) to recreational (e.g. hiking). They ranged in participation of these other sports from 1-40+ years.

***Observation and procedures.*** The observation of coaches was conducted at regularly scheduled workout sessions, pre-arranged with each participating coach. The coach was made aware of and agreed to the researcher “shadowing” them during their regular coaching. Shadowing means that the researcher was within a step or two from the coach at all times. This procedure was necessary for the researcher to accurately collect observational data and to audio-record the coach’s verbal feedback for the entire workout session. The nature of an individual “shadowing” the coach for a workout is a common occurrence in a Crossfit environment because this is a common method of on-boarding new coaches to the existing Crossfit environment. Additionally, in Crossfit workouts, plenty of open floor space is available for athletes and coaches to conduct the workout safely and comfortably, so there was always some place for a coach or observer to stand or sit to be around but not in the way of coaches or athletes.

***Coach behavior observation.*** A systematic observational assessment system was developed specifically for this study due to the novel nature of the specific research questions. An observational method was selected because no prior research of this type is known to be conducted and thus an observational method allowed the researcher to begin to understand the normal coaching behaviors of Crossfit coaches. It was developed based on prior research concerning coaching behaviors (Smith, Smoll, & Hunt, 1977), coaching excellence (Gallimore & Tharp, 2004), and feedback focal points (Kamins & Dweck, 1999) to address the specific research questions of this study. The coaching behavioral analysis system (CBAS) informed the verbal instruction component of the observation tool. The CBAS is a highly valid and reliable method of observing coaching behavior in real-time observations of coaching (Smith et al., 1977). The CBAS has been used in many different settings and different frequencies of observations, from single observation sessions to years worth of sessions with an individual coach that all hold validity determined by the specific study's hypothesis (Smith et al., 1977). Due to the specific research aims of this study, the CBAS was adapted with specific categories of coaching behavior to reflect the specific feedback focal points in the categories of person-, outcome-, and process-focused feedback of both criticism and praise (Kamins & Dweck, 1999). Categories of instruction, hustle, and other were also on the observation record sheet according to other coaching observation high frequency items that occurred when observing coaching behavior (Gallimore & Tharp, 2004).

A time-sampling method of 3-minute intervals was employed to systematically gather coaching behaviors of feedback focal points (Smith et al., 1977; Hemphill,

Templin, & Wright, 2015). This method was selected to capture a “typical” coaching session for each of the respective coach-athlete practice sessions. The principal investigator conducted two reliability and validation observation sessions of a live coaching session with a Crossfit coach and Crossfit athletes. The principal investigator conducted two validation observations to gain intra-rater reliability of coaching feedback observations. The validation observation sessions were audio-recorded while being coded during the live observation. The recordings were then listened to a second time and re-coded independent of the live observation coding. Through this intra-rater reliability system, a total of 189 codes were recorded with 5 total codes different than the original coding ( $184/189 = 97\%$  intra-rater reliability). This process used the definitions and coding conventions to consistently determine and accurately code the observed coaching verbal instruction, hustle, other, and feedback of person-, outcome-, and process-focused praise and criticism (see Appendix B). The observation tool used a time-sampling methodology of 3-minute intervals, for a total of 20 intervals across a 60-minute workout session. For each time interval, the principal investigator coded for the occurrence of person-criticism, outcome-criticism, process-criticism, person-praise, outcome-praise, process-praise, instruction, hustle, and/or other. It was possible that many of these categories occurred within the 3-minute time interval. Contextual quotes were also captured during the observation sessions that were able to give examples to each type of feedback coded during the time interval.

***Athlete mindset questionnaire.*** The athletes filled out a survey of demographic information, experience in other athletics, and their perception and desired type of

coaching feedback across the three main categories of focal points. The survey also included the Theories of Intelligence Scale (TIS) questions that addressed athlete mindset (see Appendix C). The TIS was the main measure for athlete mindset and is a valid and reliable tool that assesses an individual's mindset (Dweck et al., 1995a). The TIS has been shown to be adaptive in the assessment of individual's mindset to specific topics, in this case workouts and athletic ability (Dweck et al., 1995a; Shaffer, Tenenbaum, & Eklund, 2015). The TIS assessed the degree to which an individual had either a fixed or growth mindset, even when the key words were adapted to meet the needs of the population at hand (Dweck et al., 1995a; 1995b; Shaffer et al., 2015). For example, one item reads: "No matter how much intelligence you have, you can always change it a good amount." was modified to "No matter how much athletic ability you have, you can always change it a good amount." to meet the specific environment of athletics need for this study (see Appendix C).

The mindset questionnaire assessed the degree to which an individual holds fixed or growth mindset that is determined by a total score. The mindset questionnaire consisted of eight statements indicative of a fixed and growth mindset beliefs, to which the participant ranks their agreement on a scale from 1-6 (from 1: "disagree a lot" through 6: "agree a lot"). There are four items reflective of fixed mindset belief statements and four items reflective of growth mindset belief statements, and therefore the four fixed questions are reverse-coded when calculating a total score. A total score between 8-48 is calculated from the responses on the 8 questions. The total score with this questionnaire for an individual's mindset may fall anywhere on the spectrum of 8

(high in fixed mindset) through 48 (high in growth mindset) in whole numbers (Dweck et al., 1998a; 1998b; Dweck, 2012).

***Coach questionnaire.*** The coaches filled out an 11-item questionnaire following their observation to gather information regarding their coaching (see Appendix C). The questionnaire asked demographic questions as well as about their previous athletic and coaching experience, their Crossfit coaching certification and participation as an athlete in Crossfit, and their perceived abilities as a coach and athlete. The questionnaire also outlined the three focal points of feedback that were of particular interest in this study and asked the coaches to rate themselves on how they perceived themselves to give feedback in each of those categories, (i.e., “Please rate yourself (during this workout session) on what percentage do you actually use each type of feedback (please make sure to total to 100%).” They were also asked to give their ideal amount of feedback in each of the three categories (i.e., “If you were to choose the perfect amount of each focal point of feedback that would be the most helpful for your athletes, what would your ideal be for each type? (please make sure numbers total 100%)”). These two questions were added to the coach questionnaire to be able to compare how they perceived their own coaching, what they think the ideal coaching is, and the responses can be correlated with the observed behaviors. Smith and Smoll (1997) found that coaches have an inaccurate view of their own coaching behaviors, in that they are not the best judge of exactly what they do when they coach. Therefore, this information can be used to better understand specifically how Crossfit coaches perceive and desire their own feedback (of the three focal points of person-, outcome-, and process-focused). The total of 100% was specified

to get an understanding of a coach's perception of their feedback as a whole picture as it relates to the three focal points of feedback.

## **Results**

Overall, observations of the 15 coaches in this study strongly suggests that the first hypothesis is accurate in that coaches do give more person- and outcome-focused praise (combined at 17% of overall feedback) than process-focused praise (7% of overall feedback) (see Table 1.1).

To address the second hypothesis, the focal points of praise feedback of observed coaches were of most interest. A Pearson Correlation analysis was conducted to determine the relationship between the different focal points of praise feedback and the athlete reported mindset. There were non-significant correlations between average athlete mindset score and person-praise, outcome-praise, person- + outcome-praise, process-praise, and process-criticism. Correlation values are listed in Table 1.2 (below). Therefore, our second hypothesis failed in that more process-focused praise (and criticism) did not correlate to more athlete mindset scores with adult athletes. However, the correlations do seem to be in the anticipated direction as stated in the hypotheses (see also Figures, Appendix E).



Table 1.1. Coaching Feedback. Percentage and examples of observed coaching feedback.

Feedback Focal Point	Percentage of overall feedback	Coach quote example
Person-criticism	0%	n/a
Outcome-criticism	1%	“No, that’s wrong.”
Process-criticism	16%	“Your left knee keeps falling in on your back squat, push your knee out as you come up out of the squat” “Pull hard, pop your hips, <i>then</i> straighten your legs.”
Person-praise	1%	“You’re awesome!”
Outcome-praise	19%	“Good job.” “Nice job.” “Lookin good.”
Process-praise	7%	“Good fix pushing down on the bar.” “Great job keeping your feet together.”
Instruction	26%	“Workout today is 3 sets of 5...” “Start at 60% of your max...work up to 85%”
Hustle	13%	“C’mon!” “Let’s go!”
Other	17%	“How are you feeling from last week?” “So how was your weekend?”
Total Person-focused (criticism + praise)	1%	n/a
Total Outcome-focused (criticism + praise)	20%	n/a
Total Process-focused (criticism + praise)	23%	n/a

In addition, these findings strongly suggest that of overall focal points (criticism and praise total percentages together), process-focus had the highest percentage (23% of overall feedback) compared to person-focused and outcome-focused (1% and 20%,

respectively). This is supportive of other research findings regarding process-focus as the best feedback to promote a growth mindset (Dweck et al., 1998a; 1998b; Dweck, 2012).

*Table 1.2. Pearson Correlation Analysis Results. Athlete mindset score and coaching feedback focal point frequency correlation analysis (n=15). Note: person-focus omitted due to extremely low numbers.*

Feedback Focal Point	Pearson Correlation with athlete mindset score (r value)
Outcome-praise	-0.130
Person- + Outcome-praise	-0.104
Process-praise	0.040
Process-criticism	0.059
All Process-focused feedback (Process-praise + criticism)	0.058

Although not directly answering the original research question, other data analysis using Pearson Correlation of the collected data revealed additional interesting and potentially useful information. For the coaches, the years coaching positively correlated with their ideal process-focused feedback ( $r = .611$ ,  $p < .05$ ), and their perceived process-focused feedback ( $r = .582$ ,  $p < .05$ ). Additionally, the coaches ideal person-focused feedback was significantly correlated at  $r = -.802$  ( $p < .01$ ) with their ideal process-focused feedback. Therefore, as the coaches gained experience coaching, they report wanting (i.e., ideal) more process-focused feedback. Also, when the coaches want more process-focused feedback they also want to give less person-focused feedback. These relationships were not original aspects of the study inquiry, however they illustrate the awareness of different types of feedback in practice, and how more seasoned coaches understand process-focused benefits while younger coaches do not seem to yet, as reported by the coaches to the coach questionnaire questions.

There were no significant correlations between coach perceived and actual (observed) feedback of any of the feedback focal points. This finding is in support of research by Smith and Smoll (1997), who also found that coaches are inaccurate in their own assessment of their coaching behaviors.

### **Discussion and Professional Practice Implications**

The practical implications of this study are related to understanding fixed and growth mindsets and how feedback influences mindsets in coaching. The findings from this study provided no evidence for a significant relationship between athlete mindset and coaching feedback focal points with adult athletes, with 15 coaches. These non-significant correlations contrast with the findings of Dweck and Kamins (1999). However, the respective r-values and trend lines with the 15 data sets mirror the praise focal point relationships found with teacher-student studies (See Appendix D). Therefore, a larger sample size may give more clarity to this relationship and better inform coaching best practices for adults and athletic populations. These findings may have benefits in coaching education and help coaches intentionally build a growth mindset within athletics.

These findings may also suggest that adults are not as sensitive to feedback focal points as children when it comes to their mindset. It would be reckless to say, however, “focus on whatever you want!” to coaches who work with adult athletes, given this study’s design (e.g. small n, one-time observation). It is logical that coaching feedback is essential to athlete development, and that some feedback must be more helpful than

others. This study simply gives the first step in understanding how feedback focal points might influence an adult athlete's mindset. Future research may address how and to what extent the mindsets of adults are influenced by feedback focal points. A replication of this study with a larger participant group will also be beneficial.

The focal points of praise were of particular concern for this study. It is common for coaches to give a high amount of process-focused criticism (as shown in this study's results of 16% of all feedback observed), but much less common for process-focused praise (7% of all feedback observed in this study). It is also shown that outcome-focused praise is more common than process-focused praise (19% to 7% respectively). This is congruent with previous research on teacher-student relationships in which the researchers argued that teachers are unaware of and do not recognize the difference between the two focal points when it comes to praise (Cimpian et al., 2007). The coaching observations of praise focal points within the current study parallel the findings of Cimpian et al. (2007). Anecdotally, it may be that it is just easier to use commonly-heard statements such as "good job" when someone achieves something praise-worthy; however, there is currently no conclusive answer as to why outcome-praise is so common even though it has a counterintuitive effect on a person's mindset.

The additional findings of significant correlations between coach perception and desire for different focal points of feedback are also of practical use. The positive correlation between coaches thinking that they do process-focused feedback and their desire to give process-focused feedback suggests coaches have an underlying understanding of the value in process-focused feedback, and want to do more of it as they

coach. However, coaches also tend to be inaccurate in their own self-assessment of their coaching behaviors (Smith & Smoll, 1997) and therefore will benefit from education and development of self-awareness of their feedback to their athletes. This is helpful information to guide coaches in understanding and using the different focal points of feedback.

The practical implications from these study results must take into consideration the methodology of data collection and other limitations of the design of this study. The coaches were observed only once, and the athletes surveyed only once. The lack of relationship found between coaching feedback focal points and athlete mindset may suggest the connection between these constructs is not as strong as with children in teacher to student relationships – and thus will not show up with this small participant sample. This study did not track athletes over time, nor their beginning mindset when they started Crossfit. It is important to keep in mind that the mindset an adult athlete brings with them into the gym initially may or may not change due to the coach's feedback – this study is unable to provide any useful information regarding the degree to which an athlete's mindset may change.

Additionally, the level of competitiveness of each of the athletes varied from those who participate in Crossfit for health or personal fitness reasons all the way through those who participate in Crossfit to compete. Future research might compare the relationship of feedback focal points and athlete mindset across different competitive settings, as previous research has shown that even elite-level athletes hold, to a small degree, fixed-minded beliefs (Jowett & Spray, 2013).

An additional limitation is the lack of inter-rater reliability of the coaching observations. The observation tool was only examined for intra-rater reliability with the primary investigator. Additionally, this observation tool was created specifically to meet the objectives of the current study, and will benefit greatly from validity and inter-rater reliability testing.

Ultimately, this study only begins the necessary inquiry into understanding the role of feedback focal points with adults in the establishment, development, and possible change of mindset within athletics. The nonsignificant correlational findings demonstrate that the strength of feedback to mindset with adults is much smaller (if at all) than with children; however, the trend lines suggest a similar but weaker relationship may exist. The study design of observational method of coaching behavior during a “typical” workout coaching session also alludes to the likelihood that these findings are representative of an average coach within Crossfit, and can therefore inform tailored coaching education and application of these concepts to the betterment of coaches and their athletes.

## CHAPTER II

### DISSEMINATION

The intended dissemination form for the findings of this study is a workshop/seminar to be conducted for Crossfit coaches, or any coaches of athletes who wish to join. Coaches within the city of which the data was originally gathered will be the primary audience to be targeted for this workshop. The workshop will cover fixed and growth mindset, different feedback focal points, and how feedback focal points influence mindset (see outline below). The intent and goal of the workshop is to educate coaches on what mindset is in the context of fixed and growth, how each relates to learning and development, and how different focal points of feedback have been shown to influence it. Due to the nonsignificant correlation found in the present study, it is important to discuss how mindset plays out in adult populations, how one-time interaction does not make or break an athlete's mindset, and how the feedback focal points is one of many feedback tools to be used by coaches. An additional aim of the workshop/seminar is to educate coaches on the tendency for all coaches to have poor accuracy when it comes to self-assessment of coaching behaviors, and how they can help each other improve their feedback in coaching.

The second aspect of dissemination is the continued development and refinement of the observation tool. The observation tool proved to be highly useful in tracking the small differences in feedback focal points. It can also be beneficial for coaches to use in a

self-assessment format, as suggested by previous research (Hemphill et al., 2015).

Therefore, development of a coaching self-assessment tool will be derived from the current observation tool with the intention for coaches to identify their own behaviors and refine their feedback to benefit themselves and their athletes.

### **Workshop Outline**

1. Introduction (~5-10 minutes)
  - a. Introduce instructor and purpose of workshop/seminar.
  - b. Overview of dissertation topic and study.
  - c. Purpose with audience and target population.
2. Fixed & Growth Mindset Overview (~15-20 minutes)
  - a. Overview of five big areas.
    - i. The difference between fixed and growth mindset across five big areas (failure, challenges, effort, criticism, and success of others).
  - b. Attendee identification of example mindset statements.
3. Feedback Focal Points (~15-20 minutes)
  - a. The types of feedback focal points (person-, outcome-, and process-) for both criticism and praise.
  - b. Review each in relation to mindset (fixed or growth) development.
4. Key Take-Aways (~15-20 minutes)
  - a. Tendency of coaches to be inaccurate in their own self-assessment of their coaching behaviors, to include the focal points of their feedback.



- b. The findings of this study suggesting that not just one instance of feedback will drastically influence the mindset of the athlete, but the consistent practice of any of the focal points will likely have an impact.

#### 5. Group Discussion & Conclusion

- a. Recommendation to coaches to take knowledge from the workshop and slowly integrate it into their coaching practice.
- b. Partner or small group discussion of topics covered.
- c. Relate to overall purpose, instructor recommendations based on research findings.

### CHAPTER III

#### ACTION PLAN

The action plan to disseminate these research findings is to first conduct workshops within local Crossfit and other athletic establishments with coaches and athletes. Conducting these workshops with end-user coaches will facilitate a better understanding of the receptivity of coaches to this information. It will also inform how much education, training, and support may be needed for coaches to use this information for best outcomes. For example, how knowledgeable are coaches regarding fixed and growth mindset, and the influence of praise on each mindset? Would a self-assessment version of the coaching observation tool (the observation tool used to collect data) be useful for coaches? Or, would the observation tool be useful for coaches to observe each other, and therefore would it be necessary to educate and train them to use it properly? The observation tool used in this study may be useful for both self-assessment and peer-evaluation for coaches within different athletic organizations. These unknowns are important to assess during the dissemination of this study's findings to develop a useful product.

The long-term plan is to conduct the workshop with larger athletic organizations, coaching associations, and coaching certification organizations to embed this information into their coaching curriculum. The coach is the person with whom the athletes have the most and the most consistent contact, and so should be conducting feedback with

strategic techniques. The biggest impact that feedback focal points likely have is over a longer period of time than one workout. Especially with adults, but also very likely with older adolescents and young adults, the individual's mindset has already been formed around their respective sport or activity. Therefore, it is important for a coach to be able to recognize an athlete's mindset, and then intentionally promote growth-mindset in their athletes. Also, it is possible that some athletes in a sport have a fixed mindset and others a growth mindset. This makes it even more imperative for a coach to be able to distinguish the difference between mindsets of their athletes and understand at least one method of effectively influencing both fixed and growth minded athletes.

The action plan for further refinement of the coaching observation tool is to proceed with inter-rater reliability. Additional observers will be recruited, educated on the topic and its components, and the methodology of coaching observation used in this study. Secondly, all observers will cover the coding convention outline and discuss common as well as less common feedback phrases and how they are to be coded using the observation tool. The observers will also be taught how to handle difficult or questionable feedback phrases. Then, all observers, to include the primary investigator of this current study, will watch a live coaching session and independently code for feedback. Following, the whole group will assess their inter-rater reliability percentage and discuss difficult to code items that arose during the observed session. This discussion will also lend itself to potentially adding additional guidelines to the coding convention itself. This process will be conducted at minimum three times with observers to reach at least a 90% inter-rater reliability standard. It may also be determined that a different

standard of reliability Is needed depending on the results of these trials with additional observers.

The action plan for development of the coaching self-assessment tool will follow the inter-rater reliability testing. A prototype of the self-assessment tool will mirror the current observation tool structure, but with modifications and instructions for coaches to be able to understand and use the measure without any prior knowledge in this topic area (see Appendix D). The prototype will be taken to coaches who wish to learn more about their own coaching; they will be asked for their assessment and perspective of the tool itself, the usefulness of the topic, and any recommendations. This focus-group format will be conducted following the coaching workshops as outlined in Chapter II (see also Appendix D). Following the inter-rater reliability testing and the coaching self-assessment tool development, these two tools may be used concurrently to give coaches both an objective measure and a self-assessment.

This action plan focuses not only on providing the findings from this study to coaches who may benefit, but also in further development of useful tools and strategies for coaching excellence. There are many unknowns for the end product, however, this action plan focuses on the most reasonable next steps to further our understanding of coaching feedback and athlete mindset.

## REFERENCES

- Blackwell, L., Trzesniewski, K., & Dweck, C. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child Development*, 78, 246-263.
- Burnette, J. L., O'Boyle, E. H., VanEpps, E. M., Pollack, J. M., & Finkel, E. J. (2013). Mind-sets matter: A meta-analytic review of implicit theories and self-regulation. *Psychological Bulletin*, 139 (3), 655-701.
- Chase, M. A. (2010). Should Coaches Believe in Innate Ability? The Importance of Leadership Mindset. *Quest*, 62 (3), 296-307.
- Cimpian, A., Arce, H-M. C., Markman, E. M., & Dweck, C. S. (2007). Subtle Linguistic Cues Affect Children's Motivation. *Psychological Science*, 18, 314-316.
- Dweck, C. S. (2006). *Mindset: The new psychology of success*. New York: Random House.
- Dweck, C. S., Chiu, C., & Hong, Y. (1995a). Implicit theories and their role in judgments and reactions: A world from two perspectives. *Psychological Inquiry*, 6 (4), 267-285.
- Dweck, C. S., Chiu, C., & Hong, Y. (1995b). Implicit theories: Elaboration and extension of the model. *Psychological Inquiry*, 6 (4), 322-333.
- Dweck, C. S. (2012) Implicit theories. In P. A. M. Lange, A. W. Kruglansky, & E. T. Higgins (Eds.), *Handbook of theories of social psychology*. (pp. 43-62). London: Sage Publications Ltd.
- Dweck, C. S. & Reppucci, N. D. (1973). Learned helplessness and reinforcement responsibility in children. *Journal of Personality and Social Psychology*, 25, 109-116.
- Gallimore, R. & Tharp, R. (2004). What a coach can teach a teacher, 1975-2004: Reflections and reanalysis of John Wooden's teaching practices. *The Sport Psychologist*, 18, 119-137.

- Hemphill, M. A., Templin, T. J., & Wright, P. M. (2015). Implementation and outcomes of a responsibility-based continuing professional development protocol in physical education. *Sport, Education, and Society*, 20 (3), 398-419.
- Jowett, N. & Spray, C. M. (2013). British Olympic hopefuls: The antecedents and consequences of implicit ability beliefs in elite track and field athletes. *Psychology of Sport and Exercise*, 14, 145-153.
- Kamins, M. L. & Dweck, C. S. (1999). Person versus process praise and criticism: Implications for contingent self-worth and coping. *Developmental Psychology*, 35(3), 835-847.
- Licht, B. G. & Dweck, C. S. (1984). Determinants of academic achievement: The interaction of children's achievement orientations with skill area. *Developmental Psychology*, 20, 628-636.
- Mueller, C. M., & Dweck, C. S. (1998). Praise for intelligence can undermine children's motivation and performance. *Journal of Personality and Social Psychology*, 75, 33-52.
- Ommundsen, Y. (2001). Students' implicit theories of ability in physical education classes: The influence of motivational aspects of the learning environment. *Learning Environments Research*, 4, 139-158.
- Shaffer, C. T., Tenenbaum, G., & Eklund, R. C. (2015). Implicit theories of mental skills abilities in collegiate athletes. *Journal of Applied Sport Psychology*, 27(4), 464-476.
- Slater, M. J., Spray, C. M., & Smith, B. M. (2012). "You're only as good as your weakest link": Implicit theories of golf ability. *Psychology of Sport and Exercise*, 13, 280-290.
- Smith, R. E., & Smoll, F. L. (1997). Coaching the Coaches: Youth Sports as a Scientific and Applied Behavioral Setting. *Current Directions in Psychological Science*, 6, 16-21.
- Smith, R. E., Smoll, F. L., & Hunt, E. B. (1977). A system for the behavioral assessment of athletic coaches. *Research Quarterly*, 48, 401-407.
- Yeager, D. S. & Dweck, C. S. (2012). Mindsets that promote resilience: When students believe that personal characteristics can be developed. *Educational Psychologist*, 47 (4), 302-314.

APPENDIX A  
CONSENT FORMS

**UNIVERSITY OF NORTH CAROLINA AT GREENSBORO  
CONSENT TO ACT AS A HUMAN PARTICIPANT**

Project Title: Growth-minded athletes: Do coaching feedback focal points matter?

Principal Investigator and Faculty Advisor: Ms. Jill Wierzba & Dr. Diane Gill

Participant's Name: \_\_\_\_\_

**What are some general things you should know about research studies?**

You are being asked to take part in a research study. Your participation in the study is voluntary. You may choose not to join, or you may withdraw your consent to be in the study, for any reason, without penalty.

Research studies are designed to obtain new knowledge. This new information may help people in the future. There may not be any direct benefit to you for being in the research study. There also may be risks to being in research studies. If you choose not to be in the study or leave the study before it is done, it will not affect your relationship with the researcher or the University of North Carolina at Greensboro.

Details about this study are discussed in this consent form. It is important that you understand this information so that you can make an informed choice about being in this research study.

You will be given a copy of this consent form. If you have any questions about this study at any time, you should ask the researchers named in this consent form. Their contact information is below.

**What is the study about?**

This is a research project. Your participation is voluntary. The purpose of this research study is to learn more about the relationship between an athlete's mindset and their coach's feedback focal point style.

**Why are you asking me?**

To participate in this research study, you must be 18 years or older and participate as an athlete in a coach's class who is also participating in the study.

**What will you ask me to do if I agree to be in the study?**

You will be asked to fill out a questionnaire following your workout that asks about your beliefs around your athletic ability, your mindset, and what type(s) of coach feedback you

prefer. The questionnaire will take 5-10 minutes to complete. The PI will be present at your workout session to observe your coach, not you. There is no anticipated stress or discomfort from filling out the questionnaire.

**Is there any audio/video recording?**

There will be audio recording of your coach during the workout session – not you. Because your voice will be potentially identifiable by anyone who hears the recording, your confidentiality for things you say on the recording cannot be guaranteed although the researcher will try to limit access to the recording as described below.

**What are the risks to me?**

The Institutional Review Board at the University of North Carolina at Greensboro has determined that participation in this study poses minimal risk to participants.

If you have questions, want more information or have suggestions, please contact Jill Wierzbka at 303-668-5943 (email [jmwierzb@uncg.edu](mailto:jmwierzb@uncg.edu)) or Dr. Diane Gill at 336-334-4683 (email: [dlgill@uncg.edu](mailto:dlgill@uncg.edu)).

If you have any concerns about your rights, how you are being treated, concerns or complaints about this project or benefits or risks associated with being in this study please contact the Office of Research Integrity at UNCG toll-free at (855)-251-2351.

**Are there any benefits to society as a result of me taking part in this research?**

By learning more about the relationship between coaching feedback focal points and athlete mindsets, this study's potential benefits to society may include informing best practices for coaches, coaching education, and may influence the mindset developed in their athletes for optimal performance and improvement.

**Are there any benefits to *me* for taking part in this research study?**

There are no direct benefits to participants in this study.

**Will I get paid for being in the study? Will it cost me anything?**

There are no costs to you for participating in the study. All participants in the study will be welcome to attend a 1-hour free sport psychology workshop to be conducted following all data collection at the Crossfit affiliate. This will be scheduled through the coaching staff to maximize availability to coaches and athletes to attend.

**How will you keep my information confidential?**

All information gathered in this study will be kept confidential. To maintain confidentiality and data protection, all information gathered will be stored in a locked file cabinet, on password protected laptop computer and iPad, and not identifying participants by name when data are disseminated. Confidential codes will be used to match coach with athlete data. These codes used to match athlete and coach will be kept on a master list that will be separate from all other data, kept in a locked file cabinet in a locked office only accessible by the PI. All digital data will be stored in University of North Carolina at Greensboro provided Box, which is a secure data record system. All data will be maintained using these procedures until the dissertation project has been accepted by the University of North Carolina at Greensboro Graduate School, and will then be destroyed.



All information obtained in this study is strictly confidential unless disclosure is required by law.

**What if I want to leave the study?**

You have the right to refuse to participate or to withdraw at any time, without penalty. If you do withdraw, it will not affect you in any way. Choosing not to participate or withdrawing from the study will not effect your relationship with Crossfit or the coaching you receive. If you choose to withdraw, you may request that any of your data which has been collected be destroyed unless it is in a de-identifiable state. The investigators also have the right to stop your participation at any time. This could be because you have had an unexpected reaction, or have failed to follow instructions, or because the entire study has been stopped.

**What about new information/changes in the study?**

If significant new information relating to the study becomes available which may relate to your willingness to continue to participate, this information will be provided to you.

**Voluntary Consent by Participant:**

By signing this consent form you are agreeing that you read, or it has been read to you, and you fully understand the contents of this document and are openly willing consent to take part in this study. All of your questions concerning this study have been answered. By signing this form, you are agreeing that you are 18 years of age or older and are agreeing to participate, in this study described to you by Jill Wierzba.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**UNIVERSITY OF NORTH CAROLINA AT GREENSBORO  
CONSENT TO ACT AS A HUMAN PARTICIPANT**

Project Title: Growth-minded athletes: Do coaching feedback focal points matter?

Principal Investigator and Faculty Advisor: Ms. Jill Wierzba & Dr. Diane Gill

Participant's Name: \_\_\_\_\_

**What are some general things you should know about research studies?**

You are being asked to take part in a research study. Your participation in the study is voluntary. You may choose not to join, or you may withdraw your consent to be in the study, for any reason, without penalty.

Research studies are designed to obtain new knowledge. This new information may help

people in the future. There may not be any direct benefit to you for being in the research study. There also may be risks to being in research studies. If you choose not to be in the study or leave the study before it is done, it will not affect your relationship with the researcher or the University of North Carolina at Greensboro.

Details about this study are discussed in this consent form. It is important that you understand this information so that you can make an informed choice about being in this research study.

You will be given a copy of this consent form. If you have any questions about this study at any time, you should ask the researchers named in this consent form. Their contact information is below.

**What is the study about?**

This is a research project. Your participation is voluntary. The purpose of this research study is to learn more about the relationship between an athlete's mindset and their coach's feedback focal point style.

**Why are you asking me?**

To participate in this research study, you must be 18 years or older and be at minimum a certified Level 1 Crossfit Coach.

**What will you ask me to do if I agree to be in the study?**

You will be asked to allow the PI to observe one 1-hour workout session that you typically coach. The PI will be tallying the types of feedback you give your athletes during a typical Crossfit workout session. The PI will also be audio-recording your 1-hour workout session to be able to retrieve verbatim quotes that may be helpful during the data analysis and discussion of results. These quotes will not be traced back individually to you. Additionally, you will be asked to fill out a questionnaire following your workout that asks about your experience coaching, experience with Crossfit, and your own perception of coaching feedback to your athletes. There is no anticipated stress or discomfort from neither being observed nor filling out the questionnaire.

**Is there any audio/video recording?**

There will be audio recording of you during the workout session. Because your voice will be potentially identifiable by anyone who hears the recording, your confidentiality for things you say on the recording cannot be guaranteed although the researcher will try to limit access to the recording as described below.

**What are the risks to me?**

The Institutional Review Board at the University of North Carolina at Greensboro has determined that participation in this study poses minimal risk to participants.

If you have questions, want more information or have suggestions, please contact Jill Wierzbka at 303-668-5943 (email [jmwierzb@uncg.edu](mailto:jmwierzb@uncg.edu)) or Dr. Diane Gill at 336-334-4683 (email: [dlgill@uncg.edu](mailto:dlgill@uncg.edu)).

If you have any concerns about your rights, how you are being treated, concerns or complaints about this project or benefits or risks associated with being in this study please contact the Office of Research Integrity at UNCG toll-free at (855)-251-2351.

**Are there any benefits to society as a result of me taking part in this research?**

By learning more about the relationship between coaching feedback focal points and athlete mindsets, this study's potential benefits to society may include informing best practices for coaches, coaching education, and may influence the mindset developed in their athletes for optimal performance and improvement.

**Are there any benefits to *me* for taking part in this research study?**

There are no direct benefits to participants in this study.

**Will I get paid for being in the study? Will it cost me anything?**

There are no costs to you for participating in the study. All participants in the study will be welcome to attend a 1-hour free sport psychology workshop to be conducted following all data collection at the Crossfit affiliate. This will be scheduled through the coaching staff to maximize availability to coaches and athletes to attend.

**How will you keep my information confidential?**

All information gathered in this study will be kept confidential. To maintain confidentiality and data protection, all information gathered will be stored in a locked file cabinet, on password protected laptop computer and iPad, and not identifying participants by name when data are disseminated. Confidential codes will be used to match coach with athlete data. These codes used to match athlete and coach will be kept on a master list that will be separate from all other data, kept in a locked file cabinet in a locked office only accessible by the PI. All digital data will be stored in University of North Carolina at Greensboro provided Box, which is a secure data record system. All data will be maintained using these procedures until the dissertation project has been accepted by the University of North Carolina at Greensboro Graduate School, and will then be destroyed. All information obtained in this study is strictly confidential unless disclosure is required by law.

**What if I want to leave the study?**

You have the right to refuse to participate or to withdraw at any time, without penalty. If you do withdraw, it will not affect you in any way. Choosing not to participate or withdrawing from the study will not effect your relationship with your Crossfit location, head coach or owner, or athletes. If you choose to withdraw, you may request that any of your data which has been collected be destroyed unless it is in a de-identifiable state. The investigators also have the right to stop your participation at any time. This could be because you have had an unexpected reaction, or have failed to follow instructions, or because the entire study has been stopped.

**What about new information/changes in the study?**

If significant new information relating to the study becomes available which may relate

to your willingness to continue to participate, this information will be provided to you.

**Voluntary Consent by Participant:**

By signing this consent form you are agreeing that you read, or it has been read to you, and you fully understand the contents of this document and are openly willing consent to take part in this study. All of your questions concerning this study have been answered.

By signing this form, you are agreeing that you are 18 years of age or older and are agreeing to participate, in this study described to you by Jill Wierzba.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

APPENDIX B  
COACH OBSERVATION TOOL

**Observation Record**

Date: \_\_\_\_\_ Day of Week: M T W R F Sa Su Time: \_\_\_\_\_ - \_\_\_\_\_

Crossfit/Affiliate Name: \_\_\_\_\_

Coach Information

Name: \_\_\_\_\_

Coaching Certification Level: 1 2 3 4

Coach # \_\_\_\_\_

Athlete #s \_\_\_\_\_

Athletes in class

Total Number \_\_\_\_\_ Male \_\_\_\_\_ Female \_\_\_\_\_

Characteristics of class (i.e. generally fit, experienced; young, middle-aged:

Characteristics of environment/location (facility, space, temperature):

Other notes:

Time Interval (3-min)	Feedback Code	Comments
0-3	CP CO CS PP PO PS I H O	
4-6	CP CO CS PP PO PS I H O	
7-9	CP CO CS PP PO PS I H O	
10-12	CP CO CS PP PO PS I H O	
13-15	CP CO CS PP PO PS I H O	
16-18	CP CO CS PP PO PS I H O	
19-21	CP CO CS PP PO PS I H O	
22-24	CP CO CS PP PO PS I H O	
25-27	CP CO CS PP PO PS I H O	
28-30	CP CO CS PP PO PS I H O	
31-33	CP CO CS PP PO PS I H O	
34-36	CP CO CS PP PO PS I H O	
37-39	CP CO CS PP PO PS I H O	
40-42	CP CO CS PP PO PS I H O	
43-45	CP CO CS PP PO PS I H O	
46-48	CP CO CS PP PO PS I H O	
49-51	CP CO CS PP PO PS I H O	
52-55	CP CO CS PP PO PS I H O	
56-58	CP CO CS PP PO PS I H O	
59-60	CP CO CS PP PO PS I H O	

### Operational definitions of coding terms.

- Criticism-Person (CP) – person-focused criticism is “you have no talent.”
- Criticism-Outcome (CO) – outcome-focused criticism is “you didn’t meet the minimum requirements.”
- Criticism-Process (CS) – process-focused criticism is “you gave up too quickly.”
- Praise-Person (PP) – Person-focused praise is “you have natural ability.”
- Praise-Outcome (PO) – outcome-focused praise is “You won!”
- Praise-Process (PS) – Process-focused praise is “I saw you work really hard through that workout”

The last 3 are not direct feedback on an athlete's performance, but more general verbal comments.

- Instruction (I) – any direction-giving or instruction of particular movements not related directly at how an athlete has engaged in activity, movement, or workout. May be generalized to whole group, not necessarily focused on any one athlete. Instruction is not critique of athlete’s performance.
- Hustle (H) – encouragement, cheering, such as “come on!” or “go, go, go!”
- Other (O) – any other verbal feedback not otherwise specified above.

Person-focused is feedback from one individual to another that is focused on personal attributes or traits.

Outcome-focused is feedback from one individual to another that is focused on the outcome or result of a task.

Process-focused is feedback from one individual to another that is focused on the process, strategy, or effort involved in successfully accomplishing the task.

### Coding Convention Guidelines

1. Each respective category will be circled/marked once it occurs during the 3-minute interval. It is possible that every category or no categories will be marked for a 3-minute interval – an accurate and objective measure of coaching verbal feedback, as outlined by definitions above, will be captured.

2. If a statement of feedback starts in one 3-minute interval and carries into the next 3-minute interval, only the first 3-minute interval shall be marked with that specific code. If an additional, new piece of feedback is offered in the second interval that was of the same code as the first interval in question here, the second interval will also be marked because it was a new piece of feedback.

3. If the feedback contains more than one category (i.e. CP + PO), both categories will be marked.

4. PO and PS may both be marked, but not necessarily; because they may have similar word usage by the coach, the following examples as guidelines are to be used:

“Good job” on it’s own = PO

“Good job...[pause]...because you kept your feet flat” = PS

“Good job...[pause] ...keep doing that” = PO (because of lack of specificity in succession of feedback).

“Good job...[pause]...you feel yourself pulling all the way up? That’s helping you get power.” = PO + PS (because there was a stand-alone PS statement and PO statement, even though they were related).

5. If a feedback statement is very long and contains many possible focal points of feedback (criticism and praise), many categories may be marked to accurately reflect all components of feedback statement.



APPENDIX C  
COACH AND ATHLETE QUESTIONNAIRES

**Coach Questionnaire**

Please leave these items blank:  
Gym \_\_\_\_\_  
Coach # \_\_\_\_\_  
Athlete # \_\_\_\_\_

Please answer all of the questions to the best of your ability.

1. Age \_\_\_\_\_
2. Gender \_\_\_\_\_
3. Ethnicity/Race \_\_\_\_\_
4. Prior athletic experience:  
Please list the prior sport(s) and/or exercise that you have participated in as well as for how long (i.e. soccer, 3 years; hiking, 5 years). This does not need to be an exhaustive list.  
\_\_\_\_\_  
\_\_\_\_\_
5. Prior coaching experience:  
Please list the prior sport(s) and/or exercise that you have coached as well as for how long (i.e. soccer, 1 year). This does not need to be an exhaustive list.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
6. What Level Crossfit Coaching certification do you have (circle all)? 1 2 3 4
7. When did you receive your Level 1 coaching certification?  
\_\_\_\_\_
8. Since obtaining your Level 1 certification, how long have you coached Crossfit?  
\_\_\_\_\_ years
9. How long have you been participating as an athlete in Crossfit?  
0-6 months    6-12 months    1-2 years    3-4 years    5+ years

10. On average, how many days to you participate each week in Crossfit workouts (i.e. How many days per week do you workout yourself)?

\_\_\_\_\_

11. On a scale of 1-10, rate your overall Crossfit ability as an *athlete* (i.e. fitness, movement skill and technique, etc.), how would you rate yourself from 1 (beginner) to 10 (expert)? (circle number):

(beginner) 1   2   3   4   5   6   7   8   9   10 (expert)

12. On a scale of 1-10, rate your overall ability as a Crossfit *coach* (i.e. coaching others to improve their fitness, movement skill and technique, etc.), how would you rate yourself from 1 (beginner) to 10 (expert)? (circle number):

(beginner) 1   2   3   4   5   6   7   8   9   10 (expert)

For questions 13 & 14, please use the following information and definitions to give your answers:

This research project is investigating focal points of feedback. Feedback is when one person gives criticism or praise to another, following some kind of performance or effort. There are three types of focal points of feedback that are of interest for this research study. Person-focused, outcome-focused, and process-focused.

- Person-focus is feedback from one individual to another that is focused on personal attributes or traits. For example “you’re talented.”
- Outcome-focus is feedback from one individual to another that is focused on the outcome or result of a task. For example, “you won!”
- Process-focused is feedback from one individual to another that is focused on the process, strategy, or effort involved in successfully accomplishing the task. For example, “I saw you work hard through that workout.”

13. Please rate yourself (during this workout session) on what percentage do you actually use each type of feedback (please make sure numbers total to 100%):

Person-focused (i.e. “You’re strong!”)	_____ %
Outcome-focused (i.e. “You won!”)	_____ %
Process-focused (i.e. “you pushed yourself hard today!”)	_____ %

14. If you were to choose the perfect amount of each focal point of feedback that would be the most helpful for your athletes, what would your ideal be for each type? (please make sure numbers total to 100%):

Person-focused (i.e. “You’re strong!”)	_____ %
Outcome-focused (i.e. “You won!”)	_____ %
Process-focused (i.e. “you pushed yourself hard today!”)	_____ %

## Athlete Questionnaire

Please leave these items blank:

Gym \_\_\_\_\_

Coach # \_\_\_\_\_

Athlete # \_\_\_\_\_

Please answer all of the questions to the best of your ability.

1. Age \_\_\_\_\_

2. Gender \_\_\_\_\_

3. Ethnicity/Race \_\_\_\_\_

4. Sport, athletic, and exercise experience:

Please list the prior sport(s) and/or exercise that you have participated in as well as for how long (i.e. soccer, 3 years; hiking, 5 years). This does not need to be an exhaustive list.

---

---

---

---

5. How long have you been participating in Crossfit?

0-6 months    6-12 months    1-2 years    3-4 years    5+ years

6. On average, how many Crossfit workouts do you participate in per week?

---

7. If you were to rate your overall Crossfit athletic ability (i.e. fitness, movement skill and technique), how would you rate yourself from 1 (beginner) to 10 (expert)? (circle number):

(beginner) 1    2    3    4    5    6    7    8    9    10 (expert)

8. The following items (in the chart below) ask about view of yourself as a Crossfit athlete. Please answer each question by circling the number to indicate the extent to which you disagree or agree with the statement (1=Disagree a lot; 6=Agree a lot). It is most important that you give your honest opinion.

	Disagree a lot	Disagree	Disagree a little	Agree a little	Agree	Agree a lot
No matter how much athletic ability you have, you can always change it a good amount.	1	2	3	4	5	6
You can learn new things, but you cannot really change your basic amount of athletic ability.	1	2	3	4	5	6
I like workouts best when it makes me work hard.	1	2	3	4	5	6
I like workouts best when I can do it really well without too much trouble.	1	2	3	4	5	6
I like workouts that I'll learn from even if I make a lot of mistakes.	1	2	3	4	5	6
I like workouts best when I can do it perfectly without any mistakes.	1	2	3	4	5	6
When something is hard, it just makes me want to work more on it, not less.	1	2	3	4	5	6
To tell the truth, when I work hard at my workouts, it makes me feel like I'm not very fit.	1	2	3	4	5	6

For questions 9-11, please use the following information and definitions to give your answers:

This research project is investigating focal points of feedback. Feedback is when one person gives criticism or praise to another, following some kind of performance or effort. There are three types of focal points of feedback that are of interest for this research study. Person-focused, outcome-focused, and process-focused.

- Person-focus is feedback from one individual to another that is focused on personal attributes or traits. For example “you’re talented.”
- Outcome-focus is feedback from one individual to another that is focused on the outcome or result of a task. For example, “you won!”
- Process-focused is feedback from one individual to another that is focused on the process, strategy, or effort involved in successfully accomplishing the task. For example, “I saw you work hard through that workout.”

9. What percentage of the time does your Crossfit coach use each of the 3 types of feedback (please be sure numbers total to 100%):

Person-focused (i.e. “You’re talented!”)	_____ %
Outcome-focused (i.e. “You won!”)	_____ %
Process-focused (i.e. “you pushed yourself hard today!”)	_____ %

10. What percentage of each type of each feedback would you like to have from a Crossfit coach; what would be the ideal percentages for you? (please make sure numbers total to 100%):

Person-focused (i.e. “You’re talented!”)	_____ %
Outcome-focused (i.e. “You won!”)	_____ %
Process-focused (i.e. “you pushed yourself hard today!”)	_____ %

11. Is there any other type of feedback, or different combination, that you would like to have from a Crossfit coach? If so, please describe:

---

---

---

---

---

## APPENDIX D

### COACHING SELF-ASSESSMENT PROTOTYPE

The following is a self-assessment tool for you as a coach to first identify your own feedback focal points and second to make small changes to give better quality feedback to your athletes. Follow these steps to find out more about your own feedback:

1. Read the operational definitions (below).
2. Take the Pre-test.
3. Coach at least one practice/training/workout session.
4. Take Post-test.
5. Compare your pre- and post-tests & reflect on questions provided.

Operational definitions of coding terms.

- Criticism-Person (CP) – person-focused criticism is “you have no talent.”
- Criticism-Outcome (CO) – outcome-focused criticism is “you didn’t meet the minimum requirements.”
- Criticism-Process (CS) – process-focused criticism is “you gave up too quickly.”
- Praise-Person (PP) – Person-focused praise is “you have natural ability.”
- Praise-Outcome (PO) – outcome-focused praise is “You won!”
- Praise-Process (PS) – Process-focused praise is “I saw you work really hard through that workout”

The last 3 are not direct feedback on an athlete's performance, but more general verbal comments.

- Instruction (I) – any direction-giving or instruction of particular movements not related directly at how an athlete has engaged in activity, movement, or workout. May be generalized to whole group, not necessarily focused on any one athlete. Instruction is not critique of athlete’s performance.
- Hustle (H) – encouragement, cheering, such as “come on!” or “go, go, go!”
- Other (O) – any other verbal feedback not otherwise specified above.

Person-focused is feedback from one individual to another that is focused on personal attributes or traits.

Outcome-focused is feedback from one individual to another that is focused on the outcome or result of a task.

Process-focused is feedback from one individual to another that is focused on the process, strategy, or effort involved in successfully accomplishing the task.

### **Pre-Test**

Think of a “typical” practice or workout session you coach and all the feedback you give in the categories listed above during that “typical” session. Give yourself a percentage total for each category (and make sure it all totals to 100%).

Criticism-Person	
Criticism-Outcome	
Criticism-Process	
Praise-Person	
Praise-Outcome	
Praise-Process	
Instruction	
Hustle	
Other	
TOTAL	100%

### **Post-Test**

Now that you’ve coached and are more aware of your feedback focal points, re-assess the percentage of each category of feedback. You can think about the current session you coached or overall in your coaching practice (and make sure it all totals to 100%).

Criticism-Person	
Criticism-Outcome	
Criticism-Process	
Praise-Person	
Praise-Outcome	
Praise-Process	
Instruction	
Hustle	
Other	
TOTAL	100%

### **Reflection Questions**

- Do you notice any differences in percentages you rated yourself on?
- Does knowledge and/or education of feedback focal points change how aware you are of your own coaching behaviors of giving feedback?
- If you were low on Praise-Process, but high (comparatively) on Criticism-Process, why do you think you give more detail of process when things “went wrong” for your athlete and less when things “went right” for them?
- Do you think you give more of one kind of feedback to certain athletes and not to others? What is it about those athletes that prompts you to give certain types of feedback?

### **Take Action**

The next step of working with your own feedback is to first just pay more attention to the feedback focal points you use most often. Secondly, make a small goal for each practice to give 1 or 2 more pieces of Praise-Process feedback. Small changes add up to making a big difference.

## APPENDIX E

### FIGURES

*Figure 1.1. Person- and Outcome-Focused Praise. Scatterplot representation of coach person- plus outcome-focused praise to average athlete mindset.*

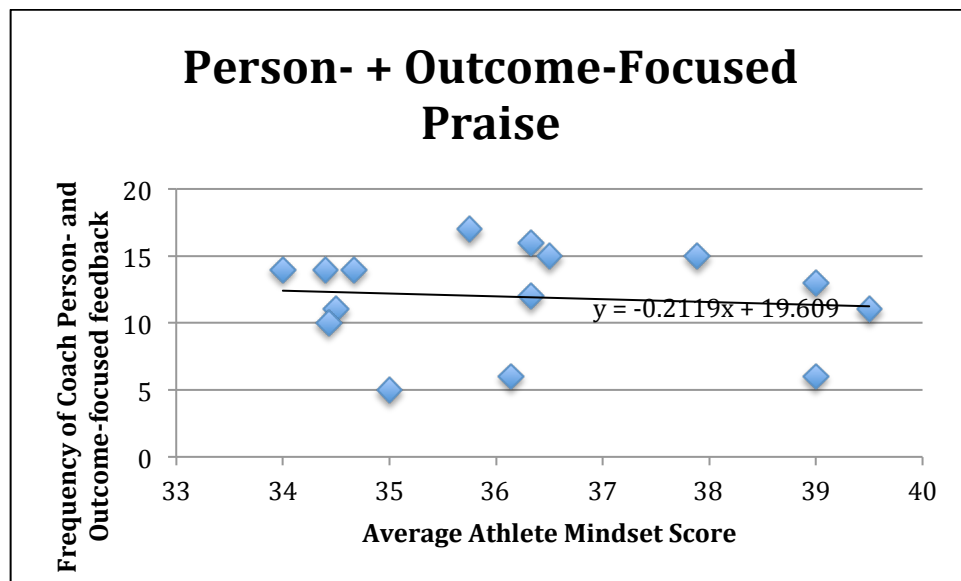




Figure 1.2. Process-Focused Praise. Scatterplot representation of coach process-focused praise to average athlete mindset.

